

Amendment  
U.S. Patent Application No. 09/900,533

**REMARKS**

Reconsideration and continued examination of the above-identified application are respectfully requested.

The amendment to the claims further defines what applicants regard as their invention. Full support for the amendment can be found throughout the present application, including the claims as originally filed, for instance, at page 9, line 12 and page 18, lines 12 and 13. Accordingly, no questions of new matter should arise and entry of the amendment is respectfully requested.

At page 2 of the Office Action, the Examiner asserts that the restriction requirement is deemed proper and is made final.

At page 2 of the Office Action, the Examiner rejects claims 9 and 32 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to specify the quantities of the density levels, such as g/cm<sup>3</sup> or ppg. For the following reasons, this rejection is respectfully traversed.

With respect to claims 9 and 32 of the present application, the density is specific gravity. See Examples and WO 96/31435 which was incorporated in its entirety by reference at page 9 of the present application. The correction requested by the Examiner has been made by inserting "specific gravity" and units by way of the amendment which is considered editorial in nature and does not at all change the scope of the invention as claimed. Accordingly, the rejection under 35 U.S.C. §112, second paragraph, should be withdrawn.

At page 3 of the Office Action, the Examiner rejects claims 1-3, 5, 6, 9, 10, 25-28, 34, 35, 37-41, 53, 54, and 57 under 35 U.S.C. §102(b) as being anticipated by WO 94/09253. According to the Examiner, WO 94/09253 shows a composition which is used to dissolve filter cakes in well bores. The composition includes potassium formate or cesium formate, and citric acid. According to the

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Examiner, citric acid is both an acid and a chelating agent. The Examiner also asserts that the combination of cesium formate and potassium formate is also disclosed in WO 94/09253. For the following reasons, this rejection is respectfully traversed.

Claim 1 of the present application relates to an aqueous-based composition comprising from about 40% to about 95% by weight cesium formate and at least one chelating agent, wherein the aqueous-based composition has a pH of from about 9 to about 14. Additionally, claims 25 and 34 of the present application relate to a composition having at least one alkali metal formate, at least one acid, at least one surfactant, and optionally at least one chelating agent wherein at least one alkali metal formate is present in an amount of from about 40% to about 95% by weight.

WO 94/09253 relates to a composition for dissolving filtercake deposits left by drilling mud in well bores having an aqueous solution of a water soluble organic acid and a salt selected from alkali metal chloride, alkali metal formate, acid tetraphosphate, alkaline earth chloride or alkali metal thiophosphate. According to WO 94/09253, the preferred acid is citric acid and the preferred salt is potassium chloride. Page 16 of WO 94/09253 specifically states that the composition includes 50 wt. % cesium formate. However, this reference does not teach an aqueous-based composition having a pH of from about 9 to about 14. Clearly, with the heavy use of acids, like citric acid, WO 94/09253 would be acidic and have a pH below 7. Additionally, WO 94/09253 does not teach the use of at least one surfactant. In fact, page 1, lines 25-32 of WO 94/09253 teaches away from the use of surfactants by stating that most stuck pipe additives are petroleum-based surfactants which need to be blended with an oil in order to carry out their function effectively. Accordingly, environmental concerns have led to the outright banning of these substances or to the regulation of their use under stringent and expensive control criteria. Therefore, WO 94/09253 does not teach the claimed invention. Accordingly, the

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rejection under 35 U.S.C. §102(b) over WO 94/09253 should be withdrawn.

At page 3 of the Office Action, the Examiner rejects claims 25, 28, 32, 55, and 56 under 35 U.S.C. §102(b) as being anticipated by GB 2314865. The Examiner asserts that GB 2314865 teaches a composition which comprises potassium formate and chelant, such as diethylenetriamine pentaacetic acid. For the following reasons, this rejection is respectfully traversed.

GB 2314865 relates to a method for dissolving sulphate scale by contacting the sulphate scale with a solution containing a scale converter, e.g., potassium carbonate; a catalyst, potassium formate; and a chelating agent. According to page 10 of GB 2314865, potassium formate is present in an amount of 10.39 weight percent. This amount is significantly lower than the recited amount of the alkali metal formate of the claimed invention, which is present in an amount of from about 40% to about 95% by weight. Therefore, GB 2314865 does not teach the claimed invention. Accordingly, the rejection under 35 U.S.C. §102(b) over GB 2314865 should be withdrawn.

At page 4 of the Office Action, the Examiner rejects claims 25, 26, 28, 29, 32, 34-38, 40, 42, and 55 under 35 U.S.C. §102(b) as being anticipated by Hallman. According to the Examiner, Hallman teaches the reclamation of formate brines, in which formic acid is added to the spent brine containing filter cake and calcium carbonate. For the following reasons, this rejection is respectfully traversed.

Hallman relates to the use of formate-based fluids for drilling and completion. Hallman does not teach adding acid to form a completion fluid. Instead, Hallman only adds acid to a used completion fluid for reclamation of certain ingredients. Moreover, Hallman does not teach the use of a surfactant. Accordingly, the rejection under 35 U.S.C. §102(b) over Hallman should be withdrawn.

At page 4 of the Office Action, the Examiner also rejects claims 25, 26, 29, and 59 under 35 U.S.C. §102(b) as being anticipated by WO 96/31435. According to the Examiner, WO 96/31435

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teaches a composition which comprises cesium formate and formic acid. For the following reasons, this rejection is respectfully traversed.

WO 96/31435 relates to processes for purifying and forming cesium compounds. According to WO 96/31435, the purifying process is particularly advantageous for use in purifying cesium compounds produced by a process utilizing lime. Contrary to the Examiner's understanding, this reference only uses acid to form cesium formate. According to the inventors, no acid remains with the cesium formate and any acid remaining would convert to formate. Thus, no completion fluid is taught by WO 96/31435 which falls within claim 25. Also, WO 96/31435 does not teach the use of at least one surfactant. Therefore, WO 96/31435 does not teach the claimed invention. Accordingly, the rejection under 35 U.S.C. §102(b) over WO 96/31435 should be withdrawn.

At the bottom of page 4 of the Office Action, the Examiner rejects claims 25, 30, 31, 32, and 55 under 35 U.S.C. §102(b) as being anticipated by Lau (U.S. Patent No. 5,184,679). According to the Examiner, Lau teaches a well bore fluid composition which comprises sodium formate and citric acid. According to the Examiner, citric acid is both an acid and chelating agent. For the following reasons, this rejection is respectfully traversed.

Lau relates to a gravel packing process in which a gravel pack slurry is thickened with succinoglycan and the slurry further includes an amount of breaker effective to result in 80% settlement of the sand from the slurry after a time period longer than about 1 hour and shorter than about 3 hours. Lau simply does not teach having at least one surfactant. Furthermore, it is important for the Examiner to understand that citric acid is not a good chelating agent and one skilled in the art would not be motivated to use citric acid as a chelating agent. Furthermore, even if one skilled in the art was motivated to use the citric acid as a chelating agent, Lau does not teach or suggest a different acid in

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addition to the citric acid (chelating agent). In other words, the claim recites a chelating agent and an acid. Lau does not teach both. Therefore, Lau does not teach the claimed invention. Accordingly, the rejection under 35 U.S.C. §102(b) over Lau should be withdrawn.

At page 5 of the Office Action, the Examiner rejects claims 1, 3, 5-10, 25-32, 34-43, and 54-56 under 35 U.S.C. §102(e) as being anticipated by Parlar et al. (U.S. Patent Publication No. 2001/0036905). According to the Examiner, Parlar et al. shows a filter cake cleanup composition which comprises a breaker such as a chelating agent, HCl or formic acid, and a brine which can include potassium formate or cesium formate. For the following reasons, this rejection is respectfully traversed.

Parlar et al. relates to filter cake cleanup and gravel pack methods for oil-based or water-based drilling fluids. According to Parlar et al., the gravel pack composition includes gravel and a carrier fluid. Therefore, the two main components of Parlar et al. are gravel and a carrier fluid. According to paragraph 62 of Parlar et al., the gravel pack carrier fluid includes 70% brine (a potassium and cesium formate mixture) for oil based gravel pack carrier fluids. However, the amount of brine (potassium and cesium formate mixture) provided in Parlar et al. is not based on the total weight of the gravel pack composition; instead, it is based solely on the carrier fluid portion of the composition. Further, Parlar et al. at paragraph 58 cautions one to not use "higher" brine contents in the emulsion. Parlar et al. does discuss water based fluids but still with controlled amounts of brine. Therefore, Parlar et al. does not teach at least one alkali metal formate in a composition that is present in an amount of from about 40% to about 95% by weight. Accordingly, the rejection under 35 U.S.C. §102(b) over Parlar et al. should be withdrawn.

At page 6 of the Office Action, the Examiner rejects claims 25 and 33 under 35 U.S.C. §103(a) as being unpatentable over Hallman. According to the Examiner, Hallman teaches the reclamation of

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formate brines, in which formic acid is added to the spent brine which contains filter cake and calcium carbonate. The Examiner acknowledges that Hallman differs from the claimed invention in that a specific level of formic acid used in the spent fluid is not disclosed. However, according to the Examiner, it would have been obvious to one of ordinary skill in the art to vary the amount of formic acid in the spent fluid of Hallman in order to achieve optimum reclamation of the formate salt from the spent fluid. For the following reasons, this rejection is respectfully traversed.

The arguments set forth above with respect to Hallman apply equally here. For instance, Hallman does not teach or suggest the use of at least one surfactant. Additionally, Hallman only adds acid for reclamation. Accordingly, the rejection under 35 U.S.C. §103(a) over Hallman should be withdrawn.

At page 6 of the Office Action, the Examiner asserts that claim 4 would be allowable if rewritten in independent form, including all the limitations of the base claim and any intervening claims. The applicants and the undersigned appreciate the Examiner's indication that claim 4 would be allowable. The applicants believe that in view of the above comments, the remaining claims are also placed in a condition for allowance.

Should the Examiner have any outstanding questions with respect to the patentability of the claimed invention over the cited arts, the Examiner is encouraged to contact the undersigned by telephone.

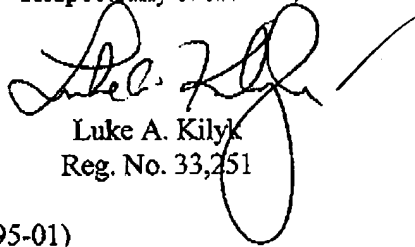
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**CONCLUSION:**

In view of the foregoing remarks, the applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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